

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

Bob Holden, Governor • Stephen M. Mahfood, Director

www.dnr.state.mo.us

JUN 4 2003

Mr. James Lanza fame
Environmental Facilitator
The Doe Company, Herculanum Smelting Division
881 Main St.
Herculanum, MO 63048

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Superfund

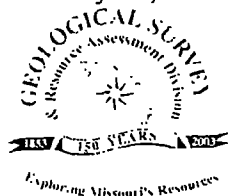
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Dear Mr. Lanza fame:

My staff has reviewed the reports prepared by White Star Environmental and Aeromet Engineering presenting the results of emission testing at Doe Run's Herculanum facility conducted in December 2002 and January 2003 respectively. White Star measured lead and particulate emissions from baghouses 7,8, and 9 and Aeromet measured lead emissions only from the main stack. Testing was performed to determine compliance with Missouri regulation 10 CSR 10-6.120 *Restriction of Emissions of Lead from Specific Lead Smelter-Refinery Installations* and 40 CFR 63.1541-1550 *Subpart TTT—National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting* (Primary Lead Smelter MACT). The Missouri regulation sets maximum allowable daily lead emissions from the baghouses and main stack. The MACT standard is a production-specific emission rate calculated by dividing the measured emission rate by the average production of lead in the 12 months preceding the test.

Staff recalculated data reduction from both reports and their results agreed with White Star's conclusions. Aeromet, however, made an error in its calculation of the MACT production-specific emission rate. In 40 CFR 63.1542 Plant Operating Time is defined as "the period of time in hours that either a sinter machine or blast furnace is in operation." Aeromet calculated annual operating hours by averaging the operating hours of the sinter plant and blast furnace. This is clearly incorrect. The larger of the two quantities determines annual operating hours because either device could be operating at any given time unless both were operating simultaneously. When the larger figure for hours of operation is used it results in a lower average annual production rate and therefore a higher production-specific emission rate.

Aeromet calculated the MACT emission rate at 354g/Mg, but the correct value is 473 g/Mg; very close (95 %) to the limit of 500 g/Mg. The main stack lead emission rate, 553 lb/24 hr, is 70 % of the state regulatory limit of 794 lb/24 hr. White Star reported daily emission rates from baghouses 7,8 and 9 which were in compliance. Baghouses 7 and 9 combined may emit 56.6 lb/24 hr and had reported emissions of 46.5 lb/24 hr (82 % of the limit). Baghouse 8 may emit 8.2 lb/24 hr and had reported emissions of 5.1 lb/24 hr (62 % of the limit). MACT testing must be repeated on or before January 28, 2004, as required by 40 CFR 63.1543.



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Mr. James Lanzafame
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All process rates were comparable to annual averages during the tests. During the January testing lead production, blast furnace charge rate and sinter plant throughput were 109%, 91%, and 95% of their respective annual averages. In December, when White Star conducted its tests, lead production and blast furnace charge rate were 92% and 99% of their respective annual averages.

Although testing conducted in April 2002 found it in violation of the MACT standard when the production-specific emission rate is calculated correctly, at the time of the December 2002 & January 2003 testing Doe Run's Herculaneum facility demonstrated compliance with the Primary Lead Smelter MACT and Missouri regulatory lead emission limits. The margin of MACT compliance was, however, extremely small, suggesting that efforts to reduce lead emissions should continue.

Thank you for your cooperation. If you have any questions on this review of your emission test results please contact Peter Yronwode of my staff at (573) 751-4817, or at the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Steven Feeler
Chief of Enforcement

SF/pym

c: St. Louis Regional Office
Leanne Tippet, Air Pollution Control Program
Dave Mosby, Hazardous Waste Program
Bob Hinkson, Hazardous Waste Program
Kara Valentine, Air and Land Protection Division
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Bruce Morrison, U.S Environmental Protection Agency Region VII
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